



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,709	10/13/2000	David Leonard Juzswik	TRW(TE)5006	8485

26294 7590 12/02/2004

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
526 SUPERIOR AVENUE, SUITE 1111
CLEVEVLAND, OH 44114

EXAMINER

PREVIL, DANIEL

ART UNIT	PAPER NUMBER
----------	--------------

2636

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,709

Applicant(s)

JUZSWIK, DAVID LEONARD

Examiner

Daniel Previl

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/15/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-30,32-40,42-54 and 57-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-30,32-40,42 and 57-64 is/are allowed.
- 6) ☒ Claim(s) 43-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 15-30, 32-40, 42, 57-67 are allowed and claims 43-54 are rejected.

Claim Objections

1. Claims 45-46 are objected to because of the following informalities: Both claims 45-46 have two dependencies 44 43. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito et al. (US 5,557,552) in view of McClelland et al. (US 6,710,708).

Regarding claims 43-44, Naito discloses a method of communicating tire condition information from a tire condition sensor unit to a vehicle-based unit (ECU 4) of a tire communication system of a vehicle (col. 5, lines 32-37) comprising: sensing a condition of the vehicle (display unit 5 indicates tire condition) (col. 5, lines 38-41); at a rate that varies in response to the sensed condition of the vehicle (variation range is provided based on the vehicle speed) (col. 8, lines 42-59).

Naito discloses all the limitations above but fails to explicitly disclose outputting from the vehicle based unit, a low frequency initiation signals for reception by the tire condition sensor unit, outputting, in response to receipt of a

low frequency initiation signal, a radio frequency signal that conveys the tire condition information from the tire condition sensor unit for reception by the vehicle-based unit.

However, McClelland discloses the step of outputting from the vehicle based unit (receiving unit 14), a low frequency initiation signals for reception by the tire condition sensor unit (fig. 1; col. 2, lines 33-43), outputting, in response to receipt of a low frequency initiation signal, a radio frequency signal that conveys the tire condition information from the tire condition sensor unit for reception by the vehicle-based unit (receiving unit 14). (fig. 1; col. 2, lines 27-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 44, Naito and McClelland discloses all the limitations in claim 43 and McClelland further discloses the step of conveying in the radio frequency response signal a fixed tire identification (col. 2, lines 65-67; col. 3, lines 1-5). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable

accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 45, Naito discloses the step of indicating the sensed condition and tire location to a vehicle operator (col. 5, lines 35-37).

Regarding claim 46, Naito discloses the step of sensing a condition of the vehicle includes sensing vehicles speed and including controlling the step of outputting the low frequency signals for reception by the tire condition sensor unit in response to sensed vehicle speed (fig. 9, fig. 10; col. 8, lines 42-59).

Regarding claim 47, Naito and McClelland disclose all the limitations in claim 43 and McClelland further discloses the step of comparing the conveyed tire identification with a stored identification at the vehicle (col. 7, lines 2-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 48, Naito and McClelland disclose all the limitations in claim 43 and McClelland further discloses the step of updating the stored identification at the vehicle via provision of a new identification from a tire condition sensor unit (col. 7, lines 2-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

4. Claims 49-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naito et al. (US 5,557,552) in view of McClelland et al. (US 6,710,708).

Regarding claim 49, Naito discloses a method of communicating tire condition information from a tire condition sensor unit to a vehicle-based unit (ECU 4) of a tire communication system of a vehicle (col. 5, lines 32-37) comprising: sensing a condition of the vehicle (display unit 5 indicates tire condition) (col. 5, lines 38-41); at a rate that varies in response to the sensed condition of the vehicle (variation range is provided based on the vehicle speed) (col. 8, lines 42-59).

Naito discloses all the limitations above but fails to explicitly disclose outputting from the vehicle based unit, a low frequency initiation signals for reception by the tire condition sensor unit, outputting, in response to receipt of a low frequency initiation signal, a radio frequency signal that conveys the tire condition information from the tire condition sensor unit for reception by the vehicle-based unit.

However, McClelland discloses the step of sequentially outputting from the vehicle based unit (receiving unit 14), a low frequency initiation signals for

reception by one of the plurality of tire condition sensor units (fig. 1; col. 2, lines 33-43), outputting, in response to receipt of a low frequency initiation signal, a radio frequency signal that conveys the tire condition information from the tire condition sensor unit for reception by the vehicle-based unit (receiving unit 14). (fig. 1; col. 2, lines 27-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 50, Naito and McClelland discloses all the limitations in claim 43 and McClelland further discloses the step of conveying in the radio frequency response signal a fixed tire identification (col. 2, lines 65-67; col. 3, lines 1-5). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 51, Naito discloses the step of indicating the sensed condition and tire locations to a vehicle operator (col. 5, lines 35-37).

Regarding claim 46, Naito discloses the step of sensing a condition of the vehicle includes sensing vehicles speed and including controlling the step of outputting the low frequency signals for reception by the tire condition sensor unit in response to sensed vehicle speed (fig. 9, fig. 10; col. 8, lines 42-59).

Regarding claim 52, Naito and McClelland disclose all the limitations in claim 43 and McClelland further discloses the step of comparing the conveyed tire identification with a stored identification at the vehicle (col. 7, lines 2-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 53, Naito and McClelland disclose all the limitations in claim 43 and McClelland further discloses the step of updating the stored identification at the vehicle via provision of a new identification from a tire condition sensor unit (col. 7, lines 2-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of McClelland in Naito. Doing so would allow the operator of the vehicle to immediately identify which tire has a problem and take corrective steps in order to avoid regrettable accident that may lead to property damage or severe injury even death as taught by McClelland (col. 7, lines 30-32).

Regarding claim 54, Naito discloses the step of sensing a condition of the vehicle includes sensing vehicles speed and including controlling the step of outputting the low frequency signals for reception by the tire condition sensor unit in response to sensed vehicle speed (fig. 9, fig. 10; col. 8, lines 42-59).

Allowable Subject Matter

5. Claims 15-30, 32-40, 42, 57-67 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: In combination with all the limitations in the claim, the prior arts fail to teach or make obvious: radio frequency transmitter means, associated with the tire and operatively connected to sensor means, for transmitting a radio frequency signal that indicates the sensed tire condition, second portion of communication means being operatively connected to a vehicle condition sensor that is adapted to sense a condition of the vehicle.

Response to Arguments

7. Applicant's arguments with respect to claims 15-30, 32-40, 42-54, 57-67 have been considered but are moot in view of the new ground(s) of rejection.
 - a. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koch et al. (US 5,573,610) discloses tires containing a monitoring device for monitoring an engineering condition therein.

Jo et al. (US 5,883,305) discloses a tire pressure monitoring system.

Oldenettel et al. (US 6,435,020) discloses a method for allocating tire pressure control devices to wheel positions in a tire pressure control system of a motor vehicle.

Momose et al. (US 6,362,733) discloses a tire inflation pressure monitor and monitoring method.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Previl whose telephone number is 703 305-1028. The examiner can normally be reached on Monday-Thursday. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel WU can be reached on 703 308-6730. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Daniel Previl
Examiner
Art Unit 2632

DP
November 19, 2004


JEFFERY HOFSAAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600